The Best Test & Measurement Tools

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KAMAN
Industrial Technologies

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FLIR Test & Measurement

FLIR DM93 True RMS Industrial Multimeter

Features advanced VFD filtering to help you accurately analyze non-traditional sine waves and noisy signals found in VFD-controlled equipment

- VFD Mode filters variable frequency drive signals and provides accurate voltage and frequency measurements during maintenance and troubleshooting
- LoZ Mode eliminates ghost voltage readings associated with long-run applications
- Powerful Worklights eliminate the need for a flashlight while performing tests in dim lighting
- Data Record feature captures electrical measurements and provides wireless data transfer
- Integrated Bluetooth technology* connects the FLIR DM93 to the FLIR Tools Mobile app on your compatible mobile device.
- METERLiNK® technology wirelessly integrates electrical readings on your infrared image with FLIR Thermal Cameras

Features:

- Voltage and Current, Bright White LED Backlight, Analog Bargraph, Auto AC/DC Voltage, Min, Max, Average Recording, Auto Power Off, Hold, Relative, Peak Hold, Store, Recall
- Includes 6 AAA Batteries, User Manual/CD, CAT IV Silicon Test Leads, Type K Temperature Probe (400°F, 204°C), Magnetic Hanging Strap and Limited Lifetime Warranty

TECHNICAL SUMMARY	MAX RANGE	BASIC ACCURACY
DC Voltage	1000.0V	±0.05%
AC Voltage	1000.0V	±0.5%
VFD Voltage	1000.0V	±0.5%
DC Current	10.000A	±0.2%
AC Current	10.000A	±1.0%
Resistance	40.00MΩ	±0.2%
Continuity Threshold	30Ω	±0.2%
Frequency	100.00kHz	±5 Digits
Capacitance	40.00mF	±0.9%
Temperature	-328 to 2192°F, -200 to 1200°C	±1.0%
Diode Test	2V	±1.5%

GENERAL INFORMATION	
Bluetooth Range Max	32 ft (10 m)
Display Counts	40,000
Category Rating	CAT IV-600V, CAT III-1000V
Data Recording	20,000 Pts (125 days max)
Warranty	Limited Lifetime*

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FLIR VP50 Non-Contact Voltage (NCV) Detector + Flashlight

Designed to reliably detect voltages on the latest tamperproof outlets and electrical systems installed

- Safe CAT IV-1000V rating and toolbox tough with rubber reinforced case and buttons, and a low-profile detection tip
- Vibration and red LED alarms alert users to the presence of voltage in noisy areas
- Versatile High/Low sensitivity modes detect voltage on industrial equipment and low-voltage installations
- Powerful LED worklight always at the ready to illuminate poorly lit locations
- Inspection light at the probe tip facilitates testing in dark areas
- Long run time capable with power saving Low Battery Indication and Auto Power Off
- Rugged double molded design
- Includes 2 AAA batteries, user manual and limited lifetime warranty

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Voltage Ranges	90 to 1000V 24 to 1000V
Category Rating	CAT IV-1000V
Frequency Range	45 - 65Hz
Built-in Flashlight	Yes
Vibrating Indication	Yes
On/Off Switch	Yes
Warranty	Limited Lifetime*

FLIR CM78 1000A Clamp Meter + IR Thermometer

True RMS Industrial Grade 1000A Clamp Meter for the electrician who needs a safe, capable combination tool

- Integrated IR Thermometer provides fast non-contact measurements on panels, conduits, and motors
- Powerful Worklights not only assist with clamping but are bright enough to serve as a primary worklight
- FLIR Tools Mobile connects the FLIR CM78 to your compatible smartphones and tablets via Bluetooth*
- METERLiNK® technology wirelessly integrates electrical readings on your infrared image with FLIR Thermal Cameras
- Includes 6 AAA Batteries, User Manual/CD and CAT IV Silicone Test Leads

TECHNICAL SUMMARY	MAX RANGE	BASIC ACCURACY
AC/DC Current	1000A	±2.5%
AC/DC Voltage	1000V	±1.5%
Resistance	40.00MΩ	±1.5%
Capacitance	4.000mF	±3%
Frequency	4000Hz	±1.5%
Temperature (IR)	-20 to 518°F, -20 to 270°C	±2%
IR Distance to Target Ratio	8 inches away : 1 inch spot size	
Type K Temperature (optional probe)	-4 to 1400°F, -20 to 760°C	±3%

GENERAL INFORMATION	
Bluetooth Range Max	32ft (10m)
Jaw Opening	1.7in (42mm, 1500MCM)
Category Rating	CAT IV-600V, CAT III-1000V
Warranty	Limited Lifetime*

FLIR CM83 600A True RMS Power Clamp

Industrial-grade Power Clamp Meter engineered with advanced power analysis and VFD filtering functions

- VFD Mode provides superior accuracy for working on VFD-controlled equipment
- Advanced power efficiency and harmonics measurements for system level performance analysis
- Powerful Worklights not only assist with clamping but are bright enough to serve as a primary worklight
- FLIR Tools Mobile connects the FLIR CM83 to your compatible smartphone and tablet via Bluetooth*
- METERLiNK® technology wirelessly integrates electrical readings on your infrared image with FLIR Thermal Cameras
- Includes 6AAA Batteries, User Manual/CD,CAT IV Silicone Test Leads

TECHNICAL SUMMARY	RANGE	BASIC ACCURACY
AC/DC Current	600A	±2%
AC/DC Voltage	1000V	±1% / 0.7%
Harmonics	1st-25th Order	±5%
Total Harmonic Distortion	0.0 to 99.9%	±3%
Inrush Current	600ACA (Integration Time 100ms)	±3 %
Active Power	10kW to 600kW (10V, 5A min)	±3%
Diode Test	0.4 to 0.8V	±0.1V
Capacitance	3.999mF Max	±1.9%
Resistance	99.99kΩ Max	±1%
Continuity Threshold	30Ω	±1%
Frequency	20.00Hz to 9.999kHz	±0.5%

GENERAL INFORMATION	
Jaw Opening	1.45in (37mm, 1000MCM)
Category Rating	CAT IV-600V, CAT III-1000V
Bluetooth Range Max	32ft (10m)
Warranty	Limited Lifetime*

FLIR MR77 Pinless Moisture Meter

Performs all the critical and advanced measurements professionals demand. Rugged design with field replaceable sensors are engineered to reduce downtime

- Field Replaceable Temperature and Relative Humidity Sensor
- Integrated IR Thermometer provides fast non-contact surface temperature measurements
- Remote pin-type probe (included) allows for contact moisture readings
- Large LCD screen clearly displays moisture, humidity, and air temperature levels
- FLIR Tools Mobile connects the FLIR MR77 to your compatible smartphone and tablet via Bluetooth*
- METERLiNK technology wirelessly integrates moisture readings on your image with FLIR Thermal Cameras
- All the sensors you need: Integrated pinless moisture sensor, Temperature and Relative Humidity, IR Thermometer and external Moisture Pin Probe

TECHNICAL SUMMARY	RANGE	BASIC ACCURACY
Pinless Moisture	0 to 99.9	Relative
Pinless Moisture Depth Max	0.75in (19mm)	
Pin Moisture	0 to 99%WME	
Relative Humidity	0 to 99%RH	±2.5%RH
Sensor Temperature	-18 to 170°F, -28 to 77°C	±3.6°F, 2°C
IR Temperature	-4 to 392°F, -20 to 200°C	±3.5%
IR Distance to Spot Ratio	8 inches away : 1 inch spot size	
IR Emissivity	0.95 (fixed)	
Vapor Pressure	0 to 20.0kPa	±2%

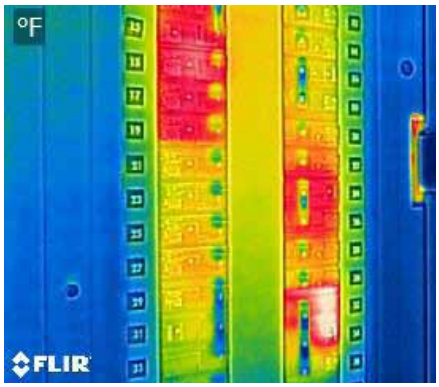
GENERAL INFORMATION	
Warranty	Limited Lifetime*
Bluetooth Range Max	32ft (10m)

Infrared Cameras

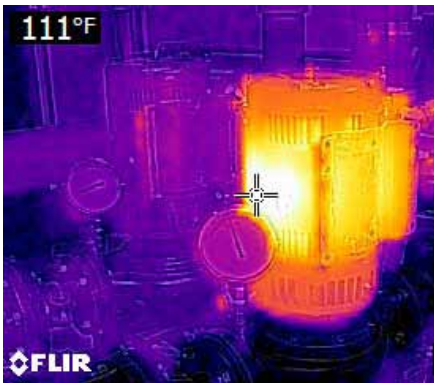
New Exclusive MSX Thermal Imaging Technology Made Affordable for Everyday Use

What is MSX?

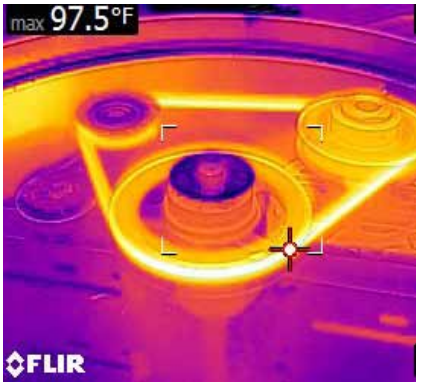
Multi-Spectral Dynamic Imaging (MSX) for easier interpretation of an image - adds visible spectrum definition to IR images by detecting the edges of objects and including that detail in the thermal image. Text becomes clearly visible so that you can read a label or identifier within the IR image. This exclusive function provides extraordinary thermal detail that instantly highlights and orients problem locations and eliminates the need to refer back to a visual image for detail.



Breaker Panel
E8 with MSX



Pump Motor
E4 with MSX



Fan Motor Belt and Pulleys
E6 with MSX

FLIR E4, E5, E6, E8 with MSX™ Enhancement

- Display: 3" color LCD
- On-board 640 x 480 Digital Camera
- Easy-to-use, weighs only 1.2lbs
- 2% accuracy
- File format: Radiometric jpg
- Swappable Li-ion Battery with 4 hour life
- Spot Measurement mode
- Simultaneous storage of IR/Visual/MSX images
- Picture in Picture image (E5, E6 and E8)
- Area Box Measurement mode (E5, E6 and E8)
- Each includes power supply/charger with four plugs, rechargeable battery, FLIR Tools software, USB cable, and hard transport case. E8 also includes extra battery and external battery charger

FLIR E4
- 4,800 pixels (80 x 60)

FLIR E5
- 10,800 pixels (120 x 90)

FLIR E6
- 19,200 pixels (160 x 120)

FLIR E8
- 76,800 pixels (320 x 240)

SPECIFICATIONS				
Model	**FLIR E4**	**FLIR E5**	**FLIR E6**	**FLIR E8**
IR Pixel Resolution	4,800 (80 x 60)	10,800 (120 x 90)	19.200 (160 x 120)	76,800 (320 x 240)
Thermal Sensitivity	<0.15°C	<0.10°C	<0.06°C	<0.06°C
Temperature Range	-4 to 482ºF (-20 to 250ºC)			
Measurement modes	Centerspot	Centerspot, Area Box, Auto Hot/Cold detection	Centerspot, Area Box, Auto Hot/Cold detection	Centerspot, Area Box, Auto Hot/Cold detection
Frame Rate	9Hz			
Field of View	45º x 34º			
Focus	Focus free			
Auto Hot/Cold Detection	No	Auto min/max markers within area	Auto min/max markers within area	Auto min/max markers within area

FLIR E-Series Compact Thermal Imaging InfraRed Cameras with MSX Enhancement and Wi-Fi

- FLIR Tools Mobile Communication – Connect an E-Series camera to smartphones and tablets with our Wi-Fi app. Stream live video so others can watch along. Import radiometric JPEGs, adjust levels, add measurement tools, then send images off in simple reports via email to expedite repair decisions
- Superior Thermal Imaging – Up to 76,800 pixels (320 × 240) for better long-range accuracy and the highest level of point & shoot camera IR resolution
- MSX Thermal Image Enhancement – See numbers, labels and other key visual details not normally apparent in a regular thermal image with an all-in-one thermal picture that instantly orients you to right where heat issues are
- Onboard Digital Camera – 3.1MP resolution provides clear visible light reference pictures; includes built-in LED lamp that doubles as a flashlight plus a laser pointer to mark locations.

*Excludes E30

Large 3.5" Touchscreen

Visible Light Pictures align with Thermal Images: 3.1MP Digital Camera, LED Lamp, and Laser Pointer

Large Buttons for Easy Glove-Handed Operation

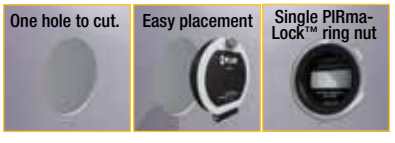
Auto-Orientation Keeps Diagnostics Overlays Upright

METER LINK Bluetooth

SPECIFICATIONS			
Model	**FLIR E40**	**FLIR E50**	**FLIR E60**
Temperature Range	-4° to 1202°F (-20° to 650°C)		
Thermal Sensitivity	70 mK	50 mK	50 mK
IR Detector Resolution	160 x 120 (19,200) Pixels	240 x 180 (43,200) Pixels	320 x 240 (76,800) Pixels
Picture In Picture	Yes		
Laser Sighting	Yes		
Temperature Accuracy	±2%		

IR Windows Enable Successful Thermographic Inspection Programs for Energized Electrical Installations

- Install an IR Window to minimize time/cost of complying with NFPA 70E requirements for electrical inspections
- Decrease the risk of arc flash incidents and resultant injuries (compared with other inspection methods)
- Perform both Visual and Thermal inspections through the crystal window
- Integrity and environmental ratings of cabinets are intact even after installation
- Hinged cover stays attached to base unit to minimize risk of dropping parts around electrical cabinets
- Windows are sized to match dimensions of standard knockout punches
- Easy to install with no screws involved
- Rugged anodized aluminum frame and cover
- Window labeling/ID# inside the cover



Model	IRW-2C (2" IR Window)	IRW-3C (3" IR Window)	IRW-4C (4" IR Window)

Infrared Cameras

FLIR T-Series High Performance Thermal Imaging Cameras with MSX Enhancement

Articulating cameras have quick-capture mode and intuitive, easy-to-use touch-screen controls.High-performance features are suitable for industrial and predictive maintenance. FOV Match automatically adjusts the digital camera field of view to match the infrared lens field of view. Compass adds camera pointing direction to every image. IR window correction settings allow you to account for transmission loss through IR windows. Professional reporting software collects and organizes data and generates a PDF report directly on the camera for download onto a USB drive.

T400 Series

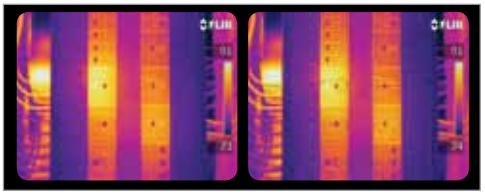
Lightweight, easy-to-use articulating camera with maximum flexibility and efficiency for thermographers

- 320 x 240 (76,800 pixels) IR detector resolution
- 3 MP digital camera with built-in flash
- 3.5” touch-screen color LCD

T600 Series

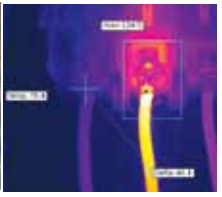
Premier cameras provide the highest resolution for measuring small targets from long distances

- 640 x 480 (307,200 pixels) resolution
- 5 MP digital camera with flash
- 4.3” touch-screen color LCD
- Video recording direct to SD Card
- GPS adds location data to every image
- Built-in viewfinder (T640 only)



Original IR Image on the Left and with MSX™ Enhancement on the Right image

Picture in Picture



Differential Temperature

SPECIFICATIONS				
Model	**T420**	**T440**	**T620**	**T640**
Temperature Range	-4º to 1202ºF	-4º to 2192ºF	-40º to 1202° F	-40º to 3632° F
Thermal Sensitivity	≥ 45 mK	≥ 45 mK	40 mK	35 mK
IR Detector Resolution	320 x 240	320 x 240	640 x 480	640 x 480
Auto Focus	Auto and Manual	Auto and Manual	Auto and Manual	Continous Focus
Zoom	4x	8x	4x	8x

The Infrared Training Center Thermal Imaging Heroes Needed: Be Ready to Answer the Call

Today’s cameras are simple to turn on, point at a target, and start capturing images or video clips. Determining whether you’re seeing a problem, analyzing your images, navigating your free software, and developing an accurate, actionable report is what’s going to make you a thermography hero. That’s going to require some training. The Infrared Training Center (ITC)—FLIR Systems’ education arm—wants to see you succeed. The greater your knowledge about thermal imaging, the greater the dividends you’ll realize for your company and your career. The ITC offers classes for practically every application, from free online courses to advanced training that can certify you as a thermography expert, qualifying you to take a leadership role in your internal IR program.

ITC classes include:

- Electrical Indoor
- Electrical Outdoor
- Building Inspection
- Condition Monitoring
- Custom R&D Applications

Infrared Thermometers

VIR50 Digital InfraRed Video Thermometer

2.2" Color TFT LCD and Built-in 640 x 480 Camera with a microSD card for capturing images (JPEG) and video (3GP) for viewing on your PC

- Dual laser indicates ideal measuring distance where the two laser points converge to a 1" target spot
- Fast 150 millisecond response time
- Color LED bargraph for viewing trends
- IR Temperature Range: -58 to 3992°F (-50 to 2200°C)
- Basic Accuracy: ±(1% of rdg + 24°F/2°C)
- Type K Temperature: -58 to 2498°F (-50 to 1370°C)
- Air Temperature: 32 to 122°F (0 to 50°C)
- Relative Humidity: 0 to 100%RH
- Adjustable emissivity increases measurement accuracy for different surfaces
- Adjustable High/Low set points with audible alarm alerts user when temperature exceeds the programmed set points
- **Includes** microSD card, general purpose Type K bead wire probe, USB cable, rechargeable 3.7V battery, and carrying case

Large 2.2" color video LCD displays measurement area with temperature/humidity, min/max/avg, date,and time stamp

Upload images and videos to a PC or laptop for further analysis or use for report documentation.

IRT600 Dual Laser IR Thermal Condensation Scanner

NEW

Measures Temperature and Humidity then calculates Dew Point and warns when conditions for mold growth exist

- Great for processes that require surface temperature control and monitoring
- Green LED changes to Yellow and then to Red as the surface temperature reading gets closer to and then equals the calculated Dew Point reading
- Dual lasers indicate ideal measuring distance where the two lasers converge to a 1" target spot
- IR Temperature Range: -22 to 662°F (-30 to 350°C)
- Basic Accuracy: ±(1% of rdg + 2.7°F/1.5°C)
- Air Temperature: 32 to 122°F (0 to 50°C)
- 12:1 Distance to Target ratio
- 150 MS IR Temperature response time
- Switchable backlight and laser
- **Includes** case and 9V battery

Bright LED indicator changes from green (normal, 1/3 range of Environment Temperature to Dew Point) to yellow (warning, 2/3 range which shows place will develop mildew) or red (alert, exceeds 2/3 range that shows place has mildew)

EXTECH INSTRUMENTS

Infrared Thermometers

IR400 Mini IR Thermometer

Compact thermometer with built-in laser pointer that identifies target area and improves aim

- Backlighting illuminates display for taking measurements at night or in areas with low background light levels
- Automatic Data Hold when trigger released
- Min/Max Hold
- Auto power off
- Fixed 0.95 emissivity covers 90% of surface applications
- **Includes** 9V battery and case

42510A Wide Range Mini IR Thermometer

Convenient portable size with wide temperature range

- Adjustable High/Low setpoints with audible alarm alerts user when temperature exceeds the programmed setpoints
- Adjustable emissivity for better accuracy on different surfaces
- Built-in laser pointer identifies target area
- Backlighting illuminates display for taking measurements at night or in areas with low background light levels
- Data Hold and Min/Max
- **Includes** 9V battery and pouch case

42509 Compact IR Thermometer

Great for processes that require temperature control and monitoring

- Dual laser for accurate target
- Fast and accurate measurements at 12" where the two lasers converge with 12:1 field of view
- Blue backlit dual LCD display changes to Red backlit when reading exceeds High or Low set points
- Exclusive 150 millisecond instantaneous
- **Includes** 9V battery and case

42512 Dual Laser InfraRed Thermometer

High temperature measurement up to 1832°F

- Dual laser for accurate target
- White backlit dual LCD display
- Fast 0.15 second response time with Max display
- Adjustable emissivity increases measurement accuracy for different surface
- Adjustable High/Low set points with audible alarm alerts user when temperature exceeds the programmed set points
- Lock function for continuous readings
- Double molded housing
- **Includes** pouch case and 9V battery

IRT500 Dual Laser IR Thermal Scanner

IR Scanner makes it easy to locate hot and cold spots quickly by scanning the area being tested. Just point at your target and scan!

- Three-color LED indicates High (red), Normal (green), or Low (blue) when scanning for temperature irregularities
- 5 user-programmable threshold settings
- A dual laser system indicates ideal measuring distance by converging at 20" (50.8cm) to confirm a 1" (2.5cm) target spot
- **Includes** 9V battery and carrying case

SPECIFICATIONS

Model	IR400	42510A	42509	42512	IRT500
Temperature Range	-4 to 630°F -20 to 332°C	-58 to 1200°F -50 to 650°C	-4 to 950°F -20 to 510°C	-58 to 1832°F -50 to 1000°C	-58 to 500°F -50 to 260°C
Basic Accuracy	±2% or ±4°F	±1%	±1%	±1%	±1%
Max. Resolution	0.1°F/°C	0.1°F/°C	0.1°F/°C	0.1°F/°C	0.1°F/°C
Emissivity	0.95 fixed	0.1 to 1.00 adjustable	0.1 to 1.00 adjustable	0.1 to 1.00 adjustable	0.95 fixed
Distance to Target	8:1	12:1	12:1	30:1	20:1
Laser Pointer	1 dot	1 dot	Dual	Dual	Dual
Data Hold	Yes	Yes	Yes	Yes	Yes
Min/Max	Yes	Yes	Max only	Max only	Yes
High/Low Alarms	—	Yes	Yes	Yes	Yes

Thermocouple Thermometers

EA15 EasyView™ Dual Input Temperature Data Logger

Temperature Data Logger compatible with 7 types of thermocouples

- Dual input thermometer accepts Types J, K, E, T, R, S, and N thermocouples
- Built-in Data Logger stores up to 8800 data sets
- RS-232 port to transfer data to PC for analysis (PC software and cable included)
- Compact and rugged design features large backlit display
- **Includes** built-in stand, protective holster, two Type K bead wire temperature probes and batteries

TM100 & TM300 Type K/J Thermometers

Side-Button controls for convenient one-hand operation

- Select single or dual input Models (J,K)
- Large backlit LCD display
- Readout in °F, °C, or K (Kelvin)
- **Includes** Type K bead wire temperature probes and 9V battery

Model TM300 Additional Feature

- Large backlit LCD displays T1, T2, T1-T2 differential, plus Min, Max, and Avg

HD200 Differential Thermometer Data Logger + IR Thermometer

Take differential temperature readings with dual Type K thermocouple probes plus non-contact surface temperature measurement using IR Thermometer Probe (included)

- Datalogs up to 18,000 readings on each channel
- Display [T1, T2, T3(IR)] or [T1-T2] or [T1-T3] or [T2-T3]
- Heavy Duty rugged double molded housing
- MAX/MIN/AVG and Data Hold
- Triple LCD display (when IR probe is plugged in)
- **Includes** two Type K bead wire probes, IR Thermometer probe, Windows® compatible software with USB cable, carrying case and 9V battery

Accessories

Model	Description
872502	Bead Wire Type J Temp Probe (-40 to 392°F)
TP875	Bead Wire Type K Temp Probe (-58 to 1000°F)
871515	General Purpose Type K Temp Probe (-40 to 1292°F)
TP200	Pipe Clamp Type K Temperature Probe (-4 to 200°F)

EA11A & EA10 EasyView™ Type K Single Input Thermometers

Single or dual input Type K Thermometers

- Compact and rugged design with high contrast large LCD display
- Manually store/recall up to 150 readings
- EA10 displays [T1 plus T2] or [T1-T2 plus T1] or [T1-T2 plus T2]
- **Includes** built-in stand, protective holster, general purpose Type K bead wire temperature probes (-4 to 482°F/-20 to 250°C) and 6 AAA batteries

SPECIFICATIONS

Model	EA11A	EA10	EA15	TM100	TM300	HD200
No. of Inputs	Single	Dual	Dual	Single	Dual	Dual + IR
Thermocouple Types	K	K	K, J, T, E, R, S, N	K, J	K, J	K
Type K °F/°C	-58 to 1999°F -50 to 1300°C	-200 to 1999°F -200 to 1360°C	-200 to 1994°F -150 to 1090°C	-328 to 2501°F -200 to 1372°C	-328 to 2501°F -200 to 1372°C	-328 to 2501°F -200 to 1372°C
Type J °F/°C	—	—	-200 to 199°F -150 to 1370°C	-346 to 2012°F -210 to 1100°C	-346 to 2012°F -210 to 1100°C	—
Infrared °F/°C	—	—	—	—	—	-22 to 1022°F -30 to 550°C
Basic Accuracy	±0.3% rdg	±0.3% rdg	±0.05% rdg	±0.15% rdg	±0.15% rdg	±0.15% rdg
Resolution	0.1°/1°	0.1°/1°	0.1°	0.1°/1°	0.1°/1°	0.1°/1°
Data logging	—	—	8800 readings	—	—	18,000 readings

Temperature Indicators

TM20 & TM25 Compact Temperature Indicators

Thermometer can be used on desktops with its removable foot stand or can be mounted on wall or metal surfaces with its magnetic back

- Fast response sensor measures temperature in liquids, semi-solids, and air
- Includes magnetic back, foot stand, temperature sensor, and a CR2032 3V button battery

Model TM20 Additional Feature
- **Includes** 0.78" (20mm) Stainless steel probe with 9.6ft (2.9m) cable

Model TM25 Additional Feature
- **Includes** 4.1" (105mm) Stainless steel penetration probe with 5ft (1.5m) cable

39272 Pocket Fold up Thermometer with Adjustable Probe

4.5" stainless steel probe adjusts from 0 to 180º with detents at 45º, 90º, 135º and 180º

- Large LCD display with 0.1 degree resolution
- Auto power off after 1 hour or when probe is placed in stored position
- Data Hold and Min/Max recordings
- Fast response time — one second under normal conditions
- **Includes** wrist strap and battery

39240 Waterproof Stem Thermometer

Pocket size with Max/Min recording, measures temperature in frozen solids and liquids

- 2.75" (70mm) Stainless steel stem
- °C/°F switchable ranges of -40 to 392°F (-40 to 200°C)
- MAX/MIN recall of high and low temperatures
- Data Hold and Auto power Off features
- Digital display with 0.1° resolution
- **Includes** one LR44 button battery and protective cover

TM40 Corkscrew Stem Thermometer

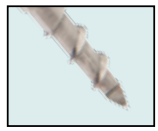
4" (101mm) stainless steel probe with T-shaped design for screwing into any hard solid or semi-solid materials for temperature measurements

- General water resistant design
- Auto power off conserves battery life
- **Includes** SR44 (G13) button battery and protective sheath for probe storage

401014 Big Digit Indoor/Outdoor Thermometer

Built-in memory with reset function for storing Minimum and Maximum Temperature readings

- Waterproof sensor for outdoor temperature measurements come with 9.6ft (3m) thin cable for easy installation
- **Includes** internal and weatherproof outdoor temperature sensor with 9.6ft (3m) thin cable, built-in stand, AAA battery and wall mounting bracket



TM40 corkscrew stem thermometer

SPECIFICATIONS						
Model	**39272**	**39240**	**TM40**	**401014**	**TM20**	**TM25**
Temperature Range	-58 to 572°F -50 to 300°C	-40 to 392°F -40 to 200°C	-58 to 302°F -50 to 150°C	14 to 140°F -10 to 60°C	-40 to 158°F -40 to 70°C	-40 to 392°F -40 to 200°C
Outdoor Temperature Range	—	—	—	-58 to 158°F -50 to 70°C	—	—
Basic Accuracy	±1.8°F/1°C	±2°F/1°C	±1.8°F/1°C	±1.8°F/1°C	±1.8°F/1°C	±1.8°F/1°C
Resolution	0.1°F/°C	0.1°F/°C	0.1°F/°C	0.1°F/°C	0.1°F/°C	0.1°F/°C
Probe	Stainless Steel Stem	Stainless Steel Stem	Stainless Steel Corkscrew	Stainless Steel w/9.6ft cable	Stainless Steel w/9.6ft cable	Stainless Steel w/5ft cable
High/Low Alarms	—	—	—	—	Yes	Yes
Min/Max	Yes	Yes	—	Yes	Yes	Yes

Multifunction Calibrators

Calibrate and Measure Current, Voltage, and Temperature

PRC10 & PRC15 Calibrator/Meters

Precision "source" for calibrating process devices and measurements

- Applications include: Process devices calibration and simulation, Field test and service, and Bench research/ development
- Double molded housing and large digital backlit LCD
- Measures DC process signals
- Standard banana I/O ports
- Large battery bank
- External power adapter

Model PRC10

- 24V DC power source for 2-wire current loop
- 0 to 24mA (-25 to 125%)

Model PRC15

- 0 to 20V DC calibration source
- 0 to 24mA (-25 to 125%)

PRC20 Thermocouple Calibrator

Source and measure 8 thermocouple type devices with one meter

- Double molded housing and large digital backlit LCD with thermocouple indication
- High accuracy calibration function simulates precision thermocouple outputs for calibrating thermometers, transmitters, controllers or recorders

PRC30 Multifunction Process Calibrator

Calibrate and Measure Current, Voltage, and Temperature

- High accuracy calibration function simulates precision thermocouple outputs for calibrating thermometers, transmitters, controllers or recorders
- Up to five user adjustable calibration presets
- Displays output in terms of millivolts or temperature based on thermocouple tables

SPECIFICATIONS				
Model	**PRC10**	**PRC15**	**PRC20**	**PRC30**
Source				
Current	0 to 24mA -25 to 125%	0 to 24mA -25 to 125%	—	0 to 24mA -25 to 125%
Voltage	—	0 to 20V	—	0 to 20V
Temperature	—	—	-58 to 2498°F (K) -50 to 1370°C -10mV to +60mV	-58 to 2498°F (K) -50 to 1370°C -10mV to +60mV
Thermocouple Types	—	—	J, K, T, E C, R, S, N	J, K, T, E C, R, S, N
Measure				
Current	0 to 50mA	0 to 50mA	—	0 to 50mA
Voltage	—	0 to 19.99V	—	0 to 19.99V
Temperature	—	—	-58 to 2498°F (K) -50 to 1370°C -10mV to +60mV	-58 to 2498°F (K) -50 to 1370°C -10mV to +60mV
Loop Supply	24VDC	—	—	24VDC
Accuracy	±0.01% ± 1	±0.01% ± 1	±0.05% ± 1°	±0.01% ± 1 ±0.05% ± 1°
Memory	5 presets	5 presets	5 presets	5 presets

Humidity Meters

HD500 Psychrometers with Infrared Thermometer

3-in-1 combination meter combines the functions of a Humidity Meter, Type K Thermometer, and IR Thermometer for non-contact surface Temperature measurement

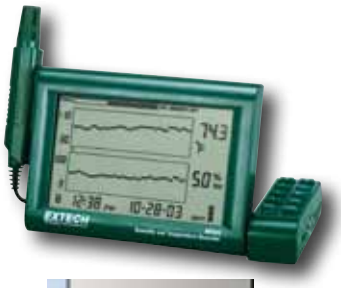
- Built-in Infrared Thermometer for non-contact temperature measurement to 932°F (500°C)
- IR Thermometer: 30:1 distance to target ratio
- Type K Thermometer for contact temperature measurement to 2501°F (1372°C)
- Large, backlit triple LCD
- 2% RH accuracy
- Built-in USB port
- Min/Max, Data hold and Auto power off functions
- **Includes** Windows® compatible software with USB cable, Type K bead wire probe, carrying case and 9V battery

Built-in IR Thermometer for non-contact temperature measurements

RH520A Humidity and Temperature Paperless Chart Recorder

Best value graphical Data Logger in the market

- User friendly, easy to set up and operate
- Simultaneous numerical and graphical display of Humidity and Temperature readings, plus Time and Date
- Included LabVIEW™-based software calculates and graphs Dew Point, Wet Bulb, and GPP (grains per pound)
- Large LCD with djustable vertical and horizontal TAC resolution
- Internal memory records up to 49,000 data points and can be transferred to a PC via RS-232 serial port for further data analysis
- Detachable probe extends to 1 meter for measurements in closed environments
- Desk or wall mount
- **Includes** built-in stand, detachable probe with 3ft (1m) cable, RS-232 cable, RS-232 To USB Adaptor, LabView-based PC software, 100-240 VAC 50/60Hz adaptor, and batteries



Built In IR Thermometer

RH390 Precision Psychrometer

Highest 2% RH accuracy with fast 30 seconds Response Time

- Temperature Range: -22 to 199°F (-30 to 100°C)
- Basic Accuracy: ±1.8°F/1°C)
- Relative Humidity: 0 to 100%RH
- Dew Point: -22 to 199°F (-30 to 100°C)
- Wet Bulb: 32 to 176°F (0 to 80°C) Dual backlit display
- Slim design with rubberized sides for better grip and for one hand operation
- Simultaneous display: Humidity/Temperature, Humidity/Dew Point, or Humidity/Wet Bulb
- Data Hold & Min/Max functions
- **Includes** hard case and 9V battery

42280 Temperature and Humidity Data Logger

Datalogs up to 16,000 readings with USB interface for downloading to a PC

- Triple LCD displays Humidity (0 to 100%), Temperature (-4 to 144°F/-20 to 70°C), and date (Year, Month, and Day)
- Basic Accuracy: ±1.0°F/0.6°C, ±3%RH
- Programmable from keypad or PC
- Selectable data sampling rate
- User programmable audible and visual alarms
- Wall, desktop, or tripod mount
- Calibration via optional salt bottles
- **Includes** Windows® compatible software, USB cable, universal AC adaptor, and batteries

Humidity / Temperature Indicators

44550 Pocket Humidity/Temperature Pen

Pocket size meter with Max/Min recording

- Dual LCD for simultaneous display of Relative Humidity and Temperature
- Temperature is °C/°F switchable
- Built-in Humidity and Temperature sensors for convenient operation
- Pocket size for quick and reliable measurements at any location
- **Includes** pocket clip and battery

445702 Hygro-Thermometer Clock

Triple display with Clock, Temperature and Humidity with user settable clock alarm

- Attractive design for desktop or wall mounting
- Three LCD displays of Time, Temperature and Humidity
- Max/Min memory with reset for Temperature and Humidity
- Switchable °C or °F temperature display
- **Includes** built-in tilt stand, wall mounting bracket and AAA battery

445703 Big Digit Hygro-Thermometer

Simultaneous humidity and temperature measurements, 3.1 x 2.4"/80 x 62mm LCD

- Memory with reset function stores maximum and minimum measurements
- °C/°F switchable temperature measurements
- Low battery indication
- **Includes** built-in tilt stand, wall mounting bracket, and 1.5V AAA battery

RH300 Hygro-Thermometer Psychrometer

External Probe Temperature measurements for differential calculates T1-T2 differential (Air Temperature minus External Probe Temperature)

- Wet bulb measurements without slinging
- Large, easy-to-read triple LCD displays % Relative Humidity, Temperature and Dew Point
- Beeper sounds and bright LED flashes when humidity level exceeds user preset (50, 60, or 65 %RH)
- **Includes** stand and 2 AA batteries

WB200 Wet Bulb Hygro-Thermometer Data Logger

Combines dry/wet bulb operation with modern electronics for accurate readings and reliable operation especially in dusty environments

- Audible and visual alarm alerts when temperature and humidity level is higher or lower than the user programmed High/Low set points
- Two thermistors provide fast and accurate readings
- **Includes** four AAA batteries and 100-240V Universal AC adaptor

SPECIFICATIONS

Model	44550	445702	445703	RH300	WB200
Humidity	20 to 90%RH	10 to 85%RH	10 to 99%RH	1 to 99%RH	0 to 99%RH
Accuracy	±5%RH	±6%RH	±5%RH	±3%RH	±3%RH
Resolution	1%RH	1%RH	1%RH	0.1%RH	0.1%RH
Temperature	14 to 122°F -10 to 50°C	14 to 140°F -10 to 60°C	14 to 140°F -10 to 60°C	14 to 140°F -10 to 60°C	41 to 122°F -5 to 50°C
Accuracy	±2°F/1°C	±1.8°F/1°C	±1.8°F/1°C	±1.8°F/1°C	±1°F/0.6°C
Resolution	1°	0.1°	0.1°	0.1°	0.1°
Wet Bulb	—	—	—	—	41 to 122°F 5 to 50°C
Dew Point	—	—	—	14 to 140°F -10 to 60°C	41 to 122°F 5 to 50°C
Clock	—	12/24 hr time	—	—	—
Min/Max	Yes	Yes	Yes	Yes	Yes
High/Low Alarms	—	—	—	High RH alarm	Yes
Data logging	—	—	—	—	100 records

Introducing Extech's SDL Series

SDL meters feature removable SD card that can be easily inserted into a computer's memory card slot or SD card reader for upload. The data is provided in Excel®, allowing you to easily analyze the information without the need for additional software

Select from a range of meters that measure and datalog Light, Sound, Airflow, Temperature, Humidity, Vibration and more

All models record data with the date/time stamp on an SD card in Excel® format for easy transfer to a PC for analysis

All models come Includes batteries, SD card, and hard carrying case

SDL400 Data Logging Light Meter with SD Card

Wide range to 10,000Fc or 100kLux

- Cosine and color-corrected measurements
- Utilizes precision silicon photo diode and spectral response filter
- Offset adjustment used for zero function to make relative measurements
- Adjustable data sampling rate: 1 to 3600 seconds
- Stores 99 readings manually and 20M readings via 2G SD card
- Type K/J Thermocouple input for high temperature measurements
- Large backlit LCD display
- Record/Recall MIN, MAX readings
- Data Hold plus Auto power off with disable function
- Built-in PC interface
- **Includes** 6 x AA batteries, SD card, hard carrying case and light sensor with protective covers

SDL600 Sound Level Data Logger

High accuracy ±1.4dB meets ANSI and IEC 61672-1 Type 2 standards

- 30 to 130dB measurement range
- Auto or Manual ranging
- AC analog output for connection to an analyzer or recorder
- Large backlit LCD display
- Stores 99 readings manually and 20M readings via 2G SD card
- Records readings with real date and time stamp
- User programmable sampling rate: 1 to 3600 seconds
- Min/Max and Data Hold functions
- Auto power off with disable function
- Built-in PC interface
- **Includes** 6 AA batteries, SD Card, wind screen, and hard carrying case

All SDL Series Models

- Data Logger date/time stamps and stores readings on an SD card in Excel® format for easy transfer to a PC

SDL200 4-Channel Thermometer

4-Channel data logging with 6 Thermocouple types and 2-Channel data logging with RTD (Pt100Ω) probes

- Displays [T1, T2, T3, T4] or differential [T1-T2] reading
- Offset adjustment used for zero function to make relative measurements
- Stores 99 readings manually and 20M readings via 2G SD card
- User programmable sampling rate: 1 to 3600 seconds
- **Includes** 6 AA batteries, four general purpose Type K bead wire temperature probes, SD card, and hard carrying case

SDL300 Metal Vane Thermo-Anemometer

Metal Vane withstands high temperatures to 158°F (70°C) and air velocity to 6900ft/min

- Adjustable data sampling rate: 1 to 3600 seconds
- Stores 99 readings manually and 20M readings via 2G SD card
- **Includes** 6 AA batteries, SD card, metal vane sensor with 3.9ft (120cm) cable, and hard carrying case

SDL310 Thermo-Anemometer

Measures Air Temperature to 122°F (50°C) and air velocity to 4930ft/min

- 2% velocity accuracy via low friction ball bearing vane wheel on 39" (1m) cable
- Type K/J Thermocouple input for high temperature measurements
- **Includes** 6 AA batteries, SD card, vane sensor with 3.9ft (120cm) cable, and hard carrying case

SDL350 Hot Wire CFM Thermo-Anemometer

Hot Wire CFM Thermo-Anemometer/Data Logger with telescoping probe designed to fit into HVAC ducts and other small openings

- Probe extends up to 7.05ft (215cm) maximum length with cable
- **Includes** 6 AA batteries, SD card, 3.1ft (95cm) fully extended telescoping probe with 3.9ft (120cm) cable, and hard carrying case

SDL500 Hygro-Thermometer

Relative Humidity, Temperature, Dew Point, and Wet Bulb measurement

- Adjustable data sampling rate: 1 to 3600 seconds
- Stores 99 readings manually and 20M readings via 2G SD card
- **Includes** 6 AA batteries, SD card, carrying case and Humidity/Temperature probe

SPECIFICATIONS

Model	SDL200	SDL500	SDL300	SDL310	SDL350
Type K Temperature	-148 to 2372°F -100 to 1300°C	-148 to 2372°F -100 to 1300°C	-148 to 2372°F -100 to 1300°C	-148 to 2372°F -100 to 1300°C	-148 to 2372°F -100 to 1300°C
Air Temperature	—	32 to 122°F 0 to 50°C	32 to 158°F 0 to 70°C	32 to 122°F 0 to 50°C	32 to 122°F 0 to 50°C
Resolution	0.1°	0.1°	0.1°	0.1°	0.1°
Air Velocity	—	—	60 to 6900ft/min 0.3 to 35m/s	80 to 4930ft/min 0.4 to 25m/s	80 to 4930ft/min 0.4 to 25m/s
CFM	—	—	—	—	0 to 1,907,000 CFM
CMM	—	—	—	—	0 to 54,000 CMM
Humidity	—	5 to 95%RH	—	—	—
Dew Point	—	-13 to 120°F -25 to 49°C	—	—	—
Wet Bulb	—	-7 to 122°F -22 to 50°C	—	—	—
Basic Accuracy	±0.4%	±1.8°F/1°C ±3%RH	±2%	±2%	±5%
Data logging	20M readings	20M readings	20M readings	20M readings	20M readings
PC Interface	SD Card & RS-232	SD Card & RS-232	SD Card & RS-232	SD Card & RS-232	SD Card & RS-232

Data Loggers

TH10 Temperature USB Data Logger

Records up to 32,000 readings

- Status Indication via Red/Yellow and Green LED
- **Includes** battery, protective USB cap, mounting bracket, and Windows®98, 2000, XP, and Vista compatible analysis software

RHT10 Humidity and Temperature USB Data Logger

Datalogs 16,000 Humidity and 16,000 Temperature readings with a user programmable sample rate

- **Includes** 3.6V Lithium battery and Windows® 98, 2000, XP, and Vista compatible analysis software

SD200 3-Channel Temperature Data Logger

Triple LCD simultaneously displays 3 Type-K Temperature channels

- **Includes** 3 Type-K bead temperature probes

SD500 Humidity/Temperature Data Logger

Dual LCD simultaneously displays Relative Humidity and Temperature readings

SD700 Barometric Pressure/Humidity/ Temperature Data Logger

Displays Barometric Pressure in 3 units of measure: hPa, mmHg, and inHg

SD750 3-Channel Pressure Data Logger

Triple LCD simultaneously displays 3 pressure channels. Optional Transducers sold separately

Extech Model	Optional Transducers
PT30	30psi Pressure Transducer
PT150	150psi Pressure Transducer
PT300	300psi Pressure Transducer

All SD Models

- Records data on an SD card
- **Includes** batteries, 2G SD card,Universal AC adaptor, and mounting bracket

SD800 CO_2/Humidity/Temperature Data Logger Checks for Carbon Dioxide concentrations

- Maintenance free dual wavelength NDIR (non-dispersive infrared) CO_2 sensor
- Triple LCD displays CO_2, Temperature and Relative Humidity
- Selectable data sampling rate: 5,10, 30, 60, 120, 300, 600 sec or Auto

SPECIFICATIONS

Model	TH10	RHT10	SD200	SD500	SD700	SD750	SD800
Temperature	-40 to 158°F -40 to 70°C	-40 to 158°F -40 to 70°C	-58 to 2372°F -100 to 1300°C	32 to 122°F 0 to 50°C	32 to 122°F 0 to 50°C	—	32 to 122°F 0 to 50°C
Accuracy	±1.8°F/1.0°C	±1°F/0.5°C	±(0.5% + 1°F) ±(0.5% + 0.5°C)	±1.5°F/0.8°C	±1.5°F/0.8°C	—	±1.8°F/0.8°C
Resolution	0.1°	0.1°	0.1°	0.1°	0.1°	—	0.1°
Humidity	—	0 to 100%RH	—	10 to 90%RH	10 to 90%RH	—	10 to 90%RH
Accuracy	—	±3%RH	—	±4%RH	±4%RH	—	±4%RH
Resolution	—	0.1%RH	—	0.1%RH	0.1%RH	—	0.1%RH
Barometric Pressure	—	—	—	—	10 to 1100hPa 7.5 to 825.0 mmHg 0.29 to 3248 inHg		Yes
Barometric Pressure Resolution	—	—	—	—	0.1hPa, 0.1mmHg, 0.01 inHg		
Pressure dependent on Transducer	—	—	—	—	—	0.02 to 30psi 0.2 to 150psi 0.2 to 300ps	—
Pressure Accuracy	—	—	—	—	—	±0.5% + 2 digits	—
Pressure Resolution	—	—	—	—	—	0.02psi	—
CO_2	—	—	—	—	—	—	0 to 4000ppm
CO_2 Accuracy	—	—	—	—	—	—	±40ppm
CO_2 Resolution	—	—	—	—	—	—	1ppm
Data logging	32,000 Temp	16,000 Temp 16,000 RH	2M readings	20M readings	20M readings	2M readings	20M readings
PC Interface	USB	USB	SD Card	SD Card	SD Card	SD Card	SD Card

Indoor Air Quality Meters

CO100 Desktop CO_2 Monitor

Measures Carbon Dioxide (CO_2), Air Temperature and Humidity with user programmable visual and audible alarm

- Maintenance free NDIR (non-dispersive infrared) CO_2 sensor
- Indoor Air Quality displayed in ppm with Good (0 to 800ppm), Normal (800 to 1200ppm), Poor (>1200ppm) indication
- Displays Year, Month, Date, and Time
- Max/Min CO_2 value recall function
- **Includes** Universal AC adaptor

CO200 & CO210 Desktop Indoor Air Quality CO_2 Monitors

Measures Carbon Dioxide (CO_2), Air Temperature and Humidity

- Maintenance free NDIR (non-dispersive infrared) CO_2 sensor
- Displays Year, Month, Date, and Time
- Max/Min CO_2 value recall function
- Automatic Baseline Calibration (minimum CO_2 level over 7.5 days) or manual calibration in fresh air
- **Includes** Universal AC adaptor

Model CO210

- Datalogs up to 5333 points (Carbon Dioxide, Air Temperature or Humidity)

EA80 EasyView™ Indoor Air Quality Meter/Data Logger

Handheld meter w/remote probe measures CO_2, Temperature, Humidity, Dew Point and Wet Bulb

- Automatically datalogs up to 20,000 sets or manually store/recall up to 99 sets
- Maintenance free dual wavelength NDIR (non-dispersive infrared) CO_2 sensor
- Data hold, Max/Min with Time stamp, and Alarm
- Easy calibration in fresh air
- **Includes** 6 AAA batteries, RS-232 cable, and Windows® 95/98/NT/2000/ME/XP compatible software

CO250 Portable Indoor Air Quality CO_2 Meter

Measures Carbon Dioxide (CO_2), Temperature, Humidity, Dew Point, and Wet Bulb

- Calculates TWA (8-hour time-weighted average) and STEL (15 minute short-term exposure limit)
- Maintenance free NDIR (non-dispersive infrared) CO_2 sensor
- Backlit triple LCD display
- Built-in RS-232 interface for capturing readings on PC
- Data acquisition software and cable included to record and document CO_2, Humidity and Temperature data
- **Includes** software and cable, 4 AA batteries, and carrying case

CO10 Carbon Monoxide (CO) Meter

Air Safety Checks in all environments up to 1000ppm

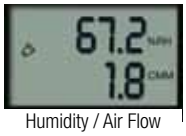
- Ergonomic pocket size housing
- One button operation
- Easy to read 1999 count backlit display
- Audible alarm starting at 35ppm with continuous beeping when above 200ppm
- Backlight for low light conditions
- **Includes** battery, rubber holster, and carrying case depending on mode

SPECIFICATIONS

Model	CO100	CO200	CO210	EA80	CO250	CO10
Carbon Dioxide	0 to 9,999ppm	0 to 9,999ppm	0 to 9,999ppm	0 to 6,000rpm	0 to 5,000ppm	—
Carbon Monoxide	—	—	—	—	—	0 to 1000ppm
Air Temperature	23 to 122°F -5 to 50°C	14 to 140°F -10 to 60°C	14 to 140°F -10 to 60°C	4 to 140°F -20 to 60°C	14 to 140°F -10 to 60°C	—
Humidity	0.1 to 90%RH	0.1 to 99.9%RH	0.1 to 99.9%RH	10 to 95%RH	0.1 to 99.9%RH	—
Dew Point	—	—	—	Yes	Yes	—
Wet Bulb	—	—	—	Yes	Yes	—
Alarm	Visual/Audible	Visual/Audible	Visual/Audible	Visual/Audible	Audible	Visual/Audible
Relay Output	—	Yes	—	—	—	—
Data logging	—	—	5,333 records	20,000 records	Directly to a PC	—
PC Interface	—	—	USB	RS-232	RS-232	—

Airflow Meters

Air Velocity / Temp



Humidity / Air Flow

Air Velocity / Wet Bulb

Air Velocity / Dew Point

Carbon Dioxide (CO_2)

AN300 Series Airflow Meters

Allows for more precise readings on larger size ducts. Each meter simultaneously displays Airflow or Air Velocity and Temperature

- Measure Air Velocity and Air Flow
- Built-in thermistor for air temperature
- Multipoint and timed average calculations
- Min/Max, Data Hold, and Auto power off
- Optional Air Flow Cone Kit (AN300-C): 8.26” (210mm) round and 13.6” (346mm) square
- **Includes** four AAA batteries and hard case

Model AN310 Additional Functions:

- Measures Relative Humidity, Wet Bulb and Dew Point

Model AN320 Additional Functions:

- Measures Relative Humidity, Wet Bulb and Dew Point
- Carbon Dioxide (CO_2) measurement

AN300-C Adapters

SPECIFICATIONS				
Model	**AN300**	**AN310**	**AN320**	**AN340**
Vane/Hot Wire	4" Vane	4" Vane	4" Vane	0.7" Mini Vane
ft/m	40 to 5900	40 to 5900	40 to 5900	98 to 3937
m/s	0.2 to 30	0.2 to 30	0.2 to 30	0.5 to 20
Accuracy	±1.5%	±1.5%	±1.5%	±3%
CFM	0 to 99999	0 to 99999	0 to 99999	0 to 99999
Temperature	-4 to 140°F -20 to 60°C	-4 to 140°F -20 to 60°C	-4 to 140°F -20 to 60°C	-4 to 140°F -20 to 60°C
Humidity	—	0.1 to 99.9%	0.1 to 99.9%	0.1 to 99.9%
Dew Point	—	-4 to 140°F -20 to 60°C	-4 to 140°F -20 to 60°C	-4 to 140°F -20 to 60°C
Wet Bulb	—	23 to 140°F -5 to 60°C	23 to 140°F -5 to 60°C	-4 to 158°F -20 to 70°C
CO_2	—	—	0 to 9999ppm	—

Airflow Meters

45118 & 45158 Mini Thermo-Anemometers

Pocket Air Velocity meters with displays of Temperature, Relative Humidity and Dew Point

- Fold up protective housing extends to 9”
- Large dual display of air velocity and temperature
- Data Hold to freeze most recent display
- Auto shutoff 15 minutes after last key is pressed
- Water resistant housing floats and Drop tested to 6 feet
- **Includes** CR2032 lithium battery and lanyard

45158 Additional Features

- Dual display of air velocity and relative humidity
- Measures RH from 10% to 95%
- Measure Dew Point from 32˚F to 122˚F lanyard

AN100 CFM/CMM Mini Thermo-Anemometer

Simultaneous display of Air Flow or Air Velocity plus Ambient Temperature

- Easy to set Area dimensions (cm^2) are stored in memory for the next power on
- 20 point average for Air Flow
- **Includes** vane sensor with 3.9ft (120cm) cable, battery, holster, and case

SDL300 Metal Vane Thermo-Anemometer

Metal Vane withstands high temperatures to 158°F (70°C) and air velocity to 6900ft/min

- Adjustable data sampling rate: 1 to 3600 secs
- Stores 99 readings manually and 20M readings via 2G SD card
- **Includes** batteries, SD card, vane sensor with 3.9ft (120cm) cable, and case

SDL350 Hot Wire CFM Thermo-Anemometer

Hot wire telescoping probe designed to fit into HVAC ducts and other small openings

- Probe extends up to 7.05ft (215cm) maximum length with cable
- Large (9999 count) LCD displays Air Velocity or Air Flow and Temperature simultaneously
- **Includes** batteries, SD card, 3.1ft (95cm) telescoping probe with 3.9ft (120cm) cable, and hard carrying case

AN500 Hot Wire CFM/CMM Thermo-Anemometer

New sensor technology improves durability, Automatic Temperature Compensation for accurate in-duct Air Velocity measurements with changing air temperatures

- Calculates CMM / CFM based on adjustable duct shape and size Slim sensor (8mm) fits easily in 3/8” holes
- Telescoping probe extends to 7ft (2.1m)
- Sensor cover for Zero Adjustment and storage protection
- Adjustable Altitude and GAIN

SPECIFICATIONS

Model	45118	45158	AN100	SDL300	SDL350	AN500
Vane/Hot Wire	1" Vane	1" Vane	2.8" Vane	2.8" Metal Vane	Hot Wire	Hot Wire
ft/m	100 to 5500	100 to 5500	80 to 5906	60 to 6900	40 to 3940	40 to 3940
m/s	0.5 to 28	0.5 to 28	0.4 to 30	0.4 to 35	0.2 to 25	0.2 to 20
km/h	1.8 to 100.6	1.8 to 100.6	1.4 to 108	1 to 126	0.7 to 72	0.7 to 75
MPH	1.1 to 62.5	1.1 to 62.5	0.9 to 67.2	0.7 to 78.2	0.5 to 45	0.5 to 45
knots	1.0 to 54.3	1.0 to 54.3	0.8 to 58.3	0.6 to 68	1 to 31	0.4 to 40
Beaufort Force	1 to 17	1 to 17	—	—	—	—
Accuracy	±3%	±3%	±3%	±2%	±5%	±3%
CFM	—	—	0 to 9999	—	0 to 1,907,000	0 to 999,999
Temperature	0 to 122°F -18 to 50°C	0 to 122°F -18 to 50°C	14 to 140°F -10 to 60°C	32 to 158°F 0 to 70°C	32 to 122°F 0 to 50°C	32 to 140°F 0 to 60°C
Windchill	0 to 122°F -18 to 50°C	0 to 122°F -18 to 50°C	—	—	—	—
Humidity	—	10 to 95%	—	—	0.1 to 99.9%	—
Dew Point	—	32 to 122°F 0 to 50°C	—	—	—	—
Type K Temperature	—	—	—	-148 to 2372°F -100 to 1300°C	-148 to 2372°F -100 to 1300°C	—
Data logging	—	—	—	20M records	20M records	—
PC Interface	—	—	—	SD Card, RS-232	SD Card, RS-232	—

Sound Meters

407732-KIT Sound Level Meter Kit

- **Includes** 407732 Sound Meter, microphone wind screen, calibration screw driver, 9V battery, 407722 Sound Calibrator with 9V battery and hard carrying case.

1kHz 94dB Sound Calibrator

- Calibrates and verifies sound meter
- Durable double molded housing
- 1kHz sine wave at 94dB/114dB generated to an accuracy of 4% frequency, ±0.5dB
- Total Harmonic Distortion (THD) <2% at 94dB

407730 Digital Sound Level Meter

Analog bargraph with 50dB range updates every 40ms for viewing trends

- AC analog output
- Record Max/Min values over time
- Auto power off and Max Hold functions
- Utilizes 0.5”(12.7mm) condenser microphone
- Fast/slow response time
- Tripod mountable
- **Includes** 4 AAA batteries and microphone windscreen

407732 Low/High Range Sound Level Meter

Dual-range Type 2 digital sound level meter with backlit LCD

- High accuracy meets ANSI and IEC 651 Type 2 standards
- High and Low measuring ranges
- Data Hold and Max Hold functions
- Backlit display to view in dimly lit area
- **Includes** microphone wind screen and 9V battery

HD600 Data logging Sound Level Meter

High accuracy data logging of up to 20,000 records meets ANSI and IEC61672-1 Type 2 standards

- Capture up to 10 readings/sec when connected to a PC
- **Includes** Windows® compatible software, USB cable, wind cover, tripod, carrying case, AC adaptor, and battery

SDL600 Sound Level Meter/Data Logger

Records data on an SD card in Excel® format for easy transfer to a PC for analysis

- AC analog output for connection to an analyzer or recorder
- Stores 99 readings manually and 20M readings via 2G SD card
- **Includes** 6 AA batteries, SD Card, wind screen, and hard carrying case

407760 USB Sound Level Data Logger

High accuracy data logging of up to 129,920 records

- ANSI and IEC 61672 Class 2 standards
- USB for easy setup and data download
- **Includes** 3.6V Lithium battery, Windows® compatible software, and windscreen

SPECIFICATIONS					
Model	**407730**	**407732**	**HD600**	**SDL600**	**407760**
Range	40 to 130dB	35 to 130dB (2 ranges)	30 to 130dB	30 to 130dB (3 ranges)	30 to 130dB
Basic Accuracy	±2dB	±1.5dB	±1.4dB	±1.4dB	±1.4dB
Weighting (A & C)	Yes	Yes	Yes	Yes	Yes
Response Time (Fast/ Slow)	Yes	Yes	Yes	Yes	Yes
Condenser Microphone	0.5"	0.5"	0.5"	0.5"	0.5"
Analog Output	AC	—	AC/DC	AC	—
Data logging	—	—	20,000 records	20M records	129,920 records
PC Interface	—	—	USB	SD card	USB

Light Meters

EA30 & EA31 EasyView™ Light Meters

High intensity measurements up to 400,000 Lux and 40,000 Foot candles

- Compact, rugged with large display
- Multiple wide measuring ranges
- Data hold freezes reading on display
- Cosine and color corrected measurements
- Low battery and overrange indication, Auto power off
- Utilizes precision silicon photo diode sensor with 3ft coiled cable
- **Includes** built-in stand, remote sensor, holster, and batteries

Model EA30 Additional Feature

- Large display with bargraph
- Peak hold captures short light pulses to 100µSec
- Relative function for zero or difference from reference value

EA33 EasyView™ Light Meter with Memory

Store and recall up to 50 measurements with relative or real time clock stamp

- Luminous intensity (candela) calculations
- Ripple function excludes the effect of stray light from the primary light source measurement
- Auto Power off with disable feature
- Multiple point average function
- Timed-Hold, Relative in absolute value or % deviation, and Comparator function with high low alarms
- Cosine and color corrected, CNS 5119 Class II
- **Includes** built-in stand, light sensor and cover with 36" (0.9m) cable, protective holster, batteries, and case

407026 Heavy Duty Light Meter with PC Interface

Simultaneous display of Foot Candles or Lux plus four lighting types. Sodium light measurements

- Microprocessor assures maximum accuracy plus special functions
- 1.4" (1999 count) LCD display
- % displays differential from reference point
- "ZERO" Re-Calibration
- Utilizes precision photo diode and color correction filter
- **Includes** battery and holster

SDL400 Light Meter/Data Logger

Date/time stamps and stores readings on an SD card in Excel® format for easy transfer to a PC

- Cosine and color-corrected measurements
- Utilizes precision silicon photo diode and spectral response filter
- Offset adjustment used for zero function to make relative measurements
- Large backlit LCD display
- Built-in PC interface
- **Includes** batteries, SD card, case and light sensor with protective cover

HD450 Data logging Heavy Duty Light Meter

Automatically store up to 16,000 readings or manually store/recall up to 99 readings Cosine and color corrected measurements

- Utilizes precision silicon photo diode and spectral response filter
- Peak mode (10mS) captures highest reading
- Relative mode indicates change in light levels
- Large backlit LCD display with 40-segment bar graph
- Heavy Duty double molded housing
- **Includes** light sensor with 3ft (1m) cable and protective cover, Windows® compatible software with USB cable, hard carrying case, and 9V battery

SPECIFICATIONS

Model	EA31	EA30	EA33	407026	HD450	SDL400
Footcandle Range	20,000Fc	40,000Fc	99,990Fc	5000Fc	40,000Fc	10,000Fc
Lux Range	20,000Lux	4000,000Lux	999,900Lux	50,000Lux	400,000Lux	100,000Lux
Resolution	0.01Fc/Lux	0.01Fc/Lux	0.001Fc/0.01Lux	0.1Fc/Lux	0.01Fc/0.1Lux	0.1Fc/Lux
Basic Accuracy	±3%rdg + 0.5%FS	±3%rdg + 0.5%FS	±3%	±4%FS	±5%	±4%
Data logging	—	—	—	Optional	16,000 readings	20M readings
PC Interface	—	—	—	RS-232	USB	SD Card

Contact and Non-Contact Tachometers

RPM33 Combination Contact/Laser Photo Tachometer

Combination meter quickly measure RPM, surface speed and length with one tool

- Laser guided for non-contact measurements up to 1.6ft
- Large 5 digit backlit LCD display
- **Includes** contact wheel for rpm or linear surface speed/length, 9V battery, reflective tape and soft case

461920 Mini Laser Photo Tachometer Counter

Laser provides greater accuracy and longer measuring distances

- Non-contact RPM measurements of rotating objects
- Use reflective tape on object to be measured and point the integral laser
- Easy to read large 5 digit LCD display
- **Includes** battery and reflective tape

461891 High Precision Contact Tachometer

For Contact rpm measurements plus Linear surface speed measurements in ft/min or m/min

- Large 5 digit LCD display is easy to read
- Memory recalls last stored MAX/MIN
- **Includes** cone tip, flat tip and spare wheel for surface speed measurements, four 1.5V AA batteries and case

461893 Photo Tachometer

Non-Contact RPM measurements

- Large 5 digit LCD display is easy to read
- Memory recalls last stored MAX/MIN
- **Includes** 23” reflective tape, four AA batteries and case

461995 Combination Contact/Laser Photo Tachometer

Combines both contact and non-contact models, laser-guided model for greater distance non-contact measurements

- Characters on display reverse direction depending on mode
- Large 0.4” (5 digit) LCD display
- **Includes** tips and wheel for rpm or linear surface speed, four 1.5V AA batteries, reflective tape and carrying case

RPM10 Photo/Contact Tachometer with built-in InfraRed Thermometer

Built-in IR thermometer with laser also measures remote surface temperature on motors and rotating parts

- Large 0.4” (5 digit) LCD display
- Non-contact Photo tachometer uses a Laser for greater measuring distance up to 6.5ft
- Characters on display reverse direction depending on mode
- **Includes** tips/wheel, four 1.5V AA batteries, reflective tape, and carrying case

SPECIFICATIONS

Model	461920	RPM33	461891	461893	461995	RPM10
Type	Laser Photo	Contact/Laser Photo	Contact	Photo	Contact/Laser Photo	Contact/Laser Photo
rpm	2 to 99,999	2 to 19,999 Contact 2 to 99,999 Photo	0.5 to 20,000	5 to 99,999	0.5 to 19,999 Contact 5 to 99,999 Photo	0.5 to 19,999 Contact 10 to 99,999 Photo
ft/min	—	0.2 to 6560	0.2 to 6560	—	0.2 to 6560	0.2 to 6560
m/min	—	0.005 to 1999.9	0.005 to 1999.9	—	0.05 to 1999.9	0.05 to 1999.9
Basic Accuracy	±0.05%	±0.05%	±0.05%	±0.05%	±0.05%	±0.05%
Resolution	0.1rpm	0.1rpm	0.1rpm	0.1rpm	0.1rpm	0.1rpm
Laser	Yes	Yes	—	—	Yes	Yes
Distance from target	1.6ft	1.6ft	—	6"	6"	6.5ft
Count (revolutions)	1 to 99,999	—	—	—	—	—
Temperature (IR)	—	—	—	—	—	-4 to 600°F -20 to 315°C

Vibration Meters

SDL800 Vibration Meter/Data Logger

Saves data on an SD card in Excel® format for easy transfer to a PC for analysis

- Remote vibration sensor with magnetic adapter on 47.2”(1.2m) cable
- Adjustable data sampling rate: 1 to 3600 seconds
- **Includes** remote sensor, magnetic mount, batteries, SD card, and case

461880 Vibration Meter + Laser/Contact Tachometer

Features display where characters reverse direction depending on mode

- Windows® 95/98/NT/2000/XP compatible software for downloading readings to your PC for further analysis
- **Includes** remote vibration sensor, magnetic mount, wheels (cone tip and flat tip), reflective tape, batteries, software with cable, and hard case

Vibration Meter Features:

- Remote vibration sensor with magnetic adapter on 39”(1m) cable

Tachometer Features:

- Uses a laser for greater distance non-contact measurements up to 4.9ft (1.5m)

VB300 3-Axis G-Force USB Data Logger

Built-in 3-axis accelerometers record the time when shock occurs

- Record storage, transport or operational data over time
- USB interface for easy set-up and data download
- Real time FFT Frequency and Time-Domain Vibration Analysis
- **Includes** Magnetized/Bolt-on Mounting Base, 3.6V Lithium battery and Windows® 98, 2000, XP, and Vista compatible analysis software

VB400 Pen Vibration Meter

Measures RMS Acceleration and Velocity with metric and imperial units of measure

- Zero adjustment
- Data Hold freezes the reading in the display
- Water and dust resistant to IP65
- **Includes** test pin tip, magnetic base, batteries, and pouch case

VB500 4-Channel Vibration Meter

Large Backlit Display simultaneously displays four channels

- Selectable data sampling rate: 1, 2, 5, 10, 30, 60, 120, 300, 600, 1800, 3600 seconds
- Remote vibration sensor with magnetic adapter on 39”(1m) cable
- Data Logger date/time stamps and stores readings on an SD card in Excel® format
- **Includes** 4 remote sensors, magnetic mounts, batteries, 100-240V Universal AC Adaptor, SD card, and heavy duty case

SPECIFICATIONS

Model	VB300	VB400	461880	SDL800	VB500
Channels	3-axis	Single	Single	Single	Four
Acceleration	±18g	656ft/s^2 200m/s^2 20.39g	656ft/s^2 200m/s^2 20.39g	656ft/s^2 200m/s^2 20.39g	656ft/s^2 200m/s^2 20.39g
Velocity	—	7.87in/s 200mm/s 19.99cm/s	7.87in/s 200mm/s 19.99cm/s	7.87in/s 200mm/s 19.99cm/s	7.87in/s 200mm/s 19.99cm/s
Displacement	—	—	0.078in 2mm	0.078in 2mm	0.078in 2mm
Accuracy	±0.5g	±5%	±5%	±5%	±5%
Frequency	0 to 60Hz	10Hz to 1kHz	10Hz to 1kHz	10Hz to 1kHz	10Hz to 1kHz
Photo (RPM)	—	—	10 to 99,999rpm	—	—
Contact (RPM)	—	—	0.5 to 19,999rpm	—	—
Surface Speed	—	—	0.2 to 6560ft/min 0.05 to 1,999m/min	—	—
Data logging	112028 Motion Detection samples per axis, or 168042 Normal samples	—	1000 readings	20M readings	20M readings
PC Interface	USB	—	RS-232	SD card and RS-232	SD card

Borescopes

BR80 Video Borescope Inspection Camera

17mm camera diameter and 2.4" Color TFT LCD Monitor with lightweight, handheld design to easily find, diagnose, and solve problem

- 39" (1m) flexible gooseneck cable retains configured shape
- Mini water-proof (IP67) camera head and cable
- Four bright LED lamps with dimmer to illuminate viewed object
- Glare-free close-up field of view
- Vivid 2.4" color LCD monitor for detailed images plus 180° image rotation feature
- **Includes** 17mm camera probe with cable, 4 AA batteries, and extension tools (mirror, hook, and magnet)

Model	BR80

BR100/BR150 Video Borescope Inspection Cameras with Detachable Displays

17mm or 9mm camera diameter and 2.4" Color TFT LCD Monitor with video output for viewing on any monitor with a video input jack

- 39" (1m) flexible gooseneck cable retains configured shape
- Mini water-proof (IP67) camera head for high resolution viewing
- Two bright LED lamps with dimmer to illuminate viewed object
- Glare-free close-up field of view
- Display detaches for easy storage
- Optional BR200-EXT extension cable available for increasing viewing depth; 19mm diameter connector and 37" (0.95m) cable length; maximum 2 extension cables can be connected to the borescope
- **Includes** 4 AA batteries, extension tools (mirror, hook, magnet), video output jack, and hard case

Model	BR100 (17mm)	BR150 (9mm)	BR200-EXT

BR200/BR250 Video Borescope/Wireless Inspection Cameras

Detachable wireless 3.5" color display can be viewed from a remote location up to 32 ft

- SD memory card captures JPEG images or video for viewing on your PC
- Captured video and still images with date/time stamp can be played back on the wireless monitor or your PC
- Mini water-proof (IP67) camera head
- Two bright LED lamps with dimmer to illuminate viewed object
- Glare-free close-up field of view
- Optional BR200-EXT extension cable available for increasing viewing depth; 19 mm diameter connector and 37" cable length; maximum two extension cables can be connected
- **Includes** micro SD card, SD adaptor, USB cable, extension tools, video cable, AC adaptor, magnetic base stand, batteries, and storage case

Detachable wireless display

Camera with LED lights

SD memory Card

Model	BR200 (17mm)	BR250 (9mm)	BR200-EXT

Water Quality Meters

PH100 ExStik® pH Meter

Flat Surface Electrode measures pH in liquids, semi-solids, and solids. No more electrode breakage or clogged junctions

- RENEW indicator tells you when it's time to replace your electrode which eliminates guesswork
- **Includes** flat surface pH electrode, protective sensor cap, sample cup with cap, four 3V CR-2032 button batteries, and 48" (1.2m) neckstrap

EC400 ExStik® Conductivity/TDS/ Salinity Meter

4-in-1 multi-range sensor for measuring Conductivity, TDS, Salinity and Temperature

- Autoranging meter offers 3 ranges of measurements from tap water to wastewater and any aqueous solution requiring a conductivity, TDS or Salinity measurements
- **Includes** Conductivity cell, protective sensor cap,sample cup with cap, four CR2032 button batteries, and 48"(1.2m) neckstrap

EC500 Waterproof ExStik® II pH/ Conductivity Meter

Innovative design with flat surface technology for quick on-the-spot pH measurements combined with autoranging high accuracy Conductivity cell

- Complete electrode, protective sensor cap, sample cup with cap, four 3V CR-2032 batteries, and 48" (1.2m) neckstrap

CL200 ExStik® Chlorine Meter

Direct reading of Total Chlorine down to 0.01ppm unaffected by color/turbidity of the sample

- Unaffected by sample color or turbidity
- **Includes** flat surface Chlorine electrode, ExTab® reagent tablets (50 tests), protective sensor cap, sample cup with cap, four 3V CR-2032 batteries, and 48" (1.2m) neckstrap

CL500 Free and Total Chlorine Meter

Conveniently take measurements of both Free and Total Chlorine

- **Includes** 1.0ppm Free Chlorine standard solution, 1.0 Total Chlorine standard solution, Zero Chlorine standard solution, (2) test bottles and covers, Free Chlorine DPD powder (10pcs), Total Chlorine DPD powder (10pcs), cleaning cloth, six AAA batteries, and hard carrying case

TB400 Portable Turbidity Meter

Conveniently test the turbidity of municipal water, food and beverage water, and other aqueous solutions where fluid clarity is important

- **Includes** 0 NTU standard solution test bottle, 100 NTU standard solution test bottle, cleaning solution (distilled water), (2) test bottles and covers, cleaning cloth, six AAA batteries, and hard carrying case

SPECIFICATIONS

Model	PH100	EC400	EC500	CL200	CL500	TB400
pH	0.00 to 14.00pH	—	0.00 to 14.00pH	—	—	—
Conductivity	—	0 to 19.99mS	0 to 19.99mS	—	—	—
TDS	—	0 to 9.99ppt	0 to 9.99ppt	—	—	—
Salinity	—	0 to 9.99ppt	0 to 9.99ppt	—	—	—
Free Chlorine	—	—	—	—	0 to 3.50ppm	0 to 3.50ppm
Total Chlorine				0.01 to 10.00ppm	0 to 3.50ppm	0 to 3.50ppm
NTU	—	—	—	—	—	0 to 1000NTU
Temperature	23 to 194°F -5 to 90°C	32 to 149°F 0 to 65°C	23 to 194°F -5 to 90°C	23 to 194°F -5 to 90°C	—	—
Basic Accuracy	±0.01pH, ±1.8°F/1°C	±2%FS, ±1.8°F/1°C	±2%FS, ±0.01pH, ±1.8°F/1°C	±10% rdg, 0.01ppm, ±1.8°F/1°C	±0.02ppm	±5%FS or ±0.5%NTU
Memory	15 readings	25 readings	25 readings	15 readings	—	—

Power Supplies

382200 & 382202 Digital Single Output DC Power Supplies

Low cost models are ideal for school laboratories

- Adjustable 30V/1A and 18V/3A supplies with dual backlit LCD displays
- Constant voltage or current
- Short circuit protection
- **Includes** power cord

382275 600W Single Output Laboratory Grade DC Power Supply

Dual Action Voltage and Current Control Push knob for fine and coarse tuning

- 0 to 30V, 20A adjustable output switching mode power supply
- Remote Control for output Voltage/ Current and On/Off
- Two user-defined Voltage and Current presets and one 13.8V/20A factory preset
- Automatic Constant Current and Constant Voltage crossover
- Dual 3-Digit LED displays
- High RFI immunity and excellent EMI
- Thermostatic Control Fan from zero to full speed
- **Includes** power cord

DCP42 160W Single Constant Switching Power Supply with USB

Constantly calculates and adjusts the Voltage and Current limit points according to available maximum power (160W)

- At maximum current (10A), voltage is limited to 16V; at maximum voltage (42V), current is limited to 3.8A
- Dual action rotary encoder control with push knob for fine and coarse tuning
- Remote control for Programming, Output Voltage/Current, and ON/OFF using supplied software, driver, and USB
- **Includes** power cord, software, and USB cable

DCP60 600W Switching Power Supply

High efficiency switching power supply with low ripple and noise is ideal for demanding laboratory applications

- Maximum current can be limited to 5A using front panel auxiliary output on the front panel (10A main output is on the back panel)
- Three user-defined Voltage and Current presets
- Dual action rotary encoder control with push knob for fine and coarse tuning
- **Includes** power cord and software

382280 Precision with Programmable 200 Watt Output DC Power Supply

40V/5A programmable supply with high resolution output and 200 test setup memories

- Selectable constant Voltage or Current modes
- Auto output of up to 200 steps with programmable Voltage, Current and time
- Programmable over voltage protection 0 to 60 second programmable overload delay timer
- Storage/Recall memory for 200 test setups
- High stability with low ripple and noise

382270 Quad Output DC Power Supply

4-in-1 Power Supply — Two fully adjustable supplies combined with two auxiliary outputs

- Two 0 to 30V/0 to 5A outputs with selectable Constant Voltage and Constant Current modes
- Outputs up to 60V in series mode or 10A in parallel mode
- Two auxiliary outputs with fixed current of 3 to 6.5V/3A and 8 to 15V/1A
- Selectable constant Voltage or Current modes
- **Includes** power cord and 4 pairs of test leads (banana plug to alligator clip)

SPECIFICATIONS

Model	382200	382202	382275	DCP42	DCP60	382280	382270
No. of Outputs	Single	Single	Single	Single	Single	Triple	Quad
Output Voltage	0 to 30V	0 to 18V	0 to 30V	0 to 42V	1 to 60V	40V 5V fixed 3.3V fixed	0 to 30V 0 to 30V 3 to 6.5V 8 to 15V
Output Current	0 to 1A	0 to 3A	0 to 20A	0 to 10A	1 to 10A	0 to 5A 2A fixed 3A fixed	0 to 5A 0 to 5A 3A fixed 1A fixed
Load/Line Voltage Regulation	<0.01% + 3mV	<0.01% + 3mV	50mV/20mV	50mV/10mV	50mV/20mV	1mV	<0.02% + 3mV
Ripple & Noise	<0.5mV	<0.5mV	<5mVrms	<5mVrms	<5mVrms	<3mV	<0.5mVrms
Memory	—	—	3 user presets	3 user presets 20 presets with up to 999 cycles	3 user presets 20 presets with up to 999 cycles	200 setups	—
PC Interface	—	—	—	USB	USB	RS-232	—
Power Source	115V/230V; 50/60Hz	115V230V; 50/60Hz	120V; 50/60Hz	120V; 50/60Hz	120V; 50/60Hz	115V/230V; 50/60Hz	110V/240V; 50/60Hz

Insulation Tester / Multimeter Kits

MG300 CAT IV Insulation Tester/Multimeter with Wireless PC Interface

Combines a 1000V Insulation Tester with a True RMS Multimeter

- Wireless USB interface transmits measurement data to a PC
- 125V, 250V, 500V, and 1000V test voltages
- Backlit triple display and waterproof (IP67) rugged housing design
- Insulation Resistance from 0.001MΩ to 4000MΩ
- Auto discharge of capacitive voltage
- Lock Power On Function for hands-free operation
- Data Hold and Auto power off
- Min/Max and Relative mode
- **Includes** remote receiver with USB cable, Windows® compatible software, heavy duty test leads, alligator clip test lead, Type K bead wire temperature probe, hard case, and 6 x AA batteries

Model	MG300

MG300-ETK Electrical Troubleshooting Kit

- MG300 — 13 Function, Wireless PC Interface, True RMS Multimeter/Insulation Tester
- 42509 — 12:1 Infrared Thermometer with high/low alarm and fast 2-color display for processes that require temperature control and monitoring; measures from -4 to 950°F (-20 to 510°C)
- MA430T — 400A True RMS AC Clamp Meter with built-in non-contact voltage detector and ideal for noisy or non-sinusoidal AC measurement
- 1.2” (30mm) jaw size for conductors up to 350MCM
- Kit is supplied with test leads, Type K thermocouple bead wire probe, batteries, and attractive storage case that provides protection and organization for the meters and accessories

Model	MG300-ETK

MG300-MTK Motor & Drive Troubleshooting Kit

- MG300 — 13 Function, Wireless PC Interface, True RMS Multimeter/Insulation Tester
- 480403 — Motor Rotation and 3-Phase Tester checks phase sequence and indicates rotation direction of the motor to help insure correct wiring
- MA435T — 400A True RMS AC/DC Clamp Meter with built-in non-contact voltage detector and ideal for noisy or non-sinusoidal AC measurement
- 1.2” (30mm) jaw size for conductors up to 350MCM
- Kit is supplied with test leads, 3 large color-coded alligator clips, Type K thermocouple bead wire probe, batteries, and attractive storage case that provides protection and organization for the meters and accessories

Model	MG300-MTK

Multimeters

EX205T & EX210T True RMS Digital Multimeters

Low cost True RMS meters provide accurate readings when measuring distorted waveforms

- Exclusive built-in IR Thermometer with laser pointer for locating hot spots with 4:1 Distance to Target Ratio (EX210T only)
- 2000 count large backlit dual LCD with easy-to read digits
- **Includes** test leads and 9V battery

EX330 12-Function Mini Multimeter + Non-Contact Voltage Detector

Combination Multimeter with Built-in Non-Contact AC Voltage Detector to quickly check for the presence of AC Voltage before testing

- Red LED indicator and audible beeper
- Large-digit 4,000 count LCD display with 1" digits make it easy to read
- 10A max Current
- Type K temperature measurements, °F/°C switchable
- **Includes** test leads, tilt stand, protective holster, general purpose Type K bead wire probe and 2 AAA batteries

EX505 11-Function Heavy Duty True RMS Industrial Multimeter

Waterproof (IP67) rugged design for heavy duty use with CAT IV-600V safety rating for industrial applications

- 1000V input protection
- Dual sensitivity frequency functions (electrical/electronic)
- Diode open circuit voltage of 2.8V DC
- Data hold, Relative, Auto power off
- 4,000 count large backlit LCD
- **Includes** double molded test leads, magnetic hanging strap, Type K bead wire probe, carrying case and 9V battery

EX530 Heavy Duty True RMS Industrial Multimeter

True RMS DMM with 40,000 count LCD display, temperature function and waterproof housing

- 1000V input protection
- Dual sensitivity frequency functions (electrical/electronic)
- MIN/MAX, Data hold, Relative, Auto power off
- **Includes** double molded test leads, magnetic hanging strap, Type K bead wire probe, carrying case and 9V battery

SPECIFICATIONS					
Model	**EX330**	**EX205T**	**EX210T**	**EX505**	**EX530**
True RMS	Averaging	TRMS	TRMS	TRMS	TRMS
Basic Accuracy	±0.5%	±0.5%	±0.5%	±0.5%	±0.06%
Display Counts	4,000	2,000	2,000	4,000	40,000
AC/DC Voltage	600V	600V	600V	1000V	1000V
AC/DC Current	10A	10A	10A	10A	20A
Resistance	40MΩ	20MΩ	20MΩ	40MΩ	40MΩ
Capacitance	200µF	—	—	100µF	40mF
Frequency	10MHz	—	—	1kHz (electrical) 10MHz (electronic)	400Hz (electrical) 100MHz (electronic)
Temperature (Type K)	-4 to 1382°F -20 to 750°C	—	—	-50 to 1382°F -45 to 750°C	-50 to 1382°F -45 to 750°C
Temperature (IR)	—	—	-5 to 446°F -20 to 230°C	—	—
Duty Cycle	Yes	—	—	Yes	Yes
NCV Detector	Yes	—	—	—	—
Waterproof	—	—	—	IP67	IP67
Drop proof	—	—	—	6.5ft	6.5ft
Safety Category	CAT III-600V	CAT III-600V	CAT III-600V	CAT IV-600V	CAT IV-600V

Clamp Meters

MA430 Series 400A Clamp Meters + NCV

Compact size allows measurements in tight locations and built-in non-contact Voltage detector with LED alert. Four models to choose from with True RMS option and advanced multimeter functions

- Built-in non-contact Voltage detector with LED alert
- Backlit LCD display
- 1.2" (30mm) jaw size for conductors up to 350MCM
- True RMS models for MA430T/MA435T and Multimeter functions included on all clamp meters
- 400A AC on AC/DC models
- Data Hold
- Low battery warning and Auto Power Off
- **Includes** test leads, general purpose Type K bead wire temperature probe (for MA435T), 9V battery, and case

MA640 True RMS AC/DC Clamp Meter + NCV

60A and 600A Current ranges and True RMS for accurate readings on distorted waveforms

- 1.5" (40mm) jaw size for conductors up to 500MCM
- Data Hold, MIN/MAX, Auto Power Off
- 6000 count, backlit LCD display
- **Includes** test leads, Type K probe, 9V battery and carrying case

EX830 True RMS AC/DC Clamp Meter + IR

Ideal for industrial applications, full size 1000A clamp features a built-in infrared thermometer and rugged double molded housing

- True RMS Current and Voltage measurements
- Peak hold captures inrush currents and Transients
- 1.7" (43mm) jaw opening for conductors up to 750MCM or two 500MCM
- **Includes** test leads, 9V battery, Type K probe and case

EX840 AC/DC True RMS Clamp/DMM + IR Thermometer

Ideal for industrial applications, 1000A AC/DC, and double molded housing

- Peak hold captures inrush currents and Transients
- 1.7" (43mm) jaw opening for conductors up to 750MCM or two 500MCM
- CAT IV - 600V rating
- **Includes** CAT IV test leads, 9V battery, Pro test lead set, Type K probe, and case

SPECIFICATIONS

Model	MA430	MA430T	MA435T	MA640	EX830	EX840
True RMS	Averaging	TRMS	TRMS	TRMS	TRMS	TRMS
Display Counts	2,000	2,000	4,000	6,000	4,000	4,000
AC Current	400A	400A	400A	600A	1000A	1000A
ACA Accuracy	±2.5%	±2.5%	±2.5%	±2.8%	±2.5%	±2.5%
DC Current	—	—	400A	600A	1000A	1000A
AC/DC Voltage	600V	600V	600V	600V	600V	1000V
Resistance	20MΩ	20MΩ	40MΩ	60MΩ	40MΩ	40MΩ
Capacitance	—	—	100µF	4000µF	40mF	40mF
Frequency	—	—	10kHz	10kHz	4kHz	4kHz
Temperature (Type K)	—	—	-4 to 1400°F -20 to 760°C	-4 to 1400°F -20 to 760°C	-4 to 1400°F -20 to 760°C	-4 to 1400°F -20 to 760°C
Temperature (IR)	—	—	—	—	-58 to 518°F -50 to 270°C	-58 to 518°F -50 to 270°C
Duty Cycle	—	—	—	Yes	—	—
NCV Detector	Yes	Yes	Yes	Yes	—	—
Safety Category	CAT III-600V	CAT III-600V	CAT III-600V	CAT III-600V	CAT III-600V	CAT IV-600V

Electrical Test Kits / Digital Oscilloscopes

ETK30 Electrical Test Kit with AC Clamp Meter

This special value kit provides all the electrical testing needs for installation and repair of electrical systems and HVAC equipment

Kit Includes:

- EX205T True RMS Multimeter
- MA430 400A AC Clamp Meter with a built-in Non-Contact Voltage Detector with LED alert
- 1.2" (30mm) jaw size for conductors up to 350MCM
- Data Hold and Max Hold
- **Includes** test leads, batteries, and storage case

Model	ETK30

ETK35 Electrical Test Kit with TRMS AC/DC Clamp Meter

Special value Kit comes with AC/DC True RMS Clamp Meter to provide measurements for all your electrical, HVAC, large appliance, automotive and motor applications

Kit Includes:

- EX205T True RMS DMM
- MA435T True RMS 400A AC/DC Clamp Meter with a built-in Non-Contact Voltage Detector
- 1.2" (30mm) jaw size for conductors up to 350MCM
- **Includes** test leads, Type K thermocouple bead wire probe, batteries, and storage case

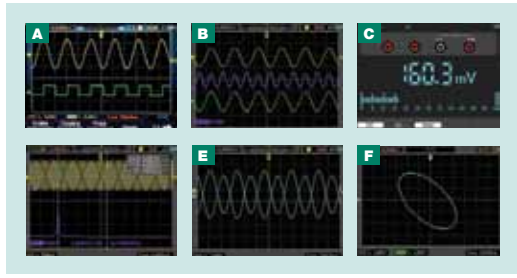
Model	ETK35

MS6000 Series 2-Channel Digital Oscilloscopes

5.6" (142mm) graphical color LCD for viewing multiple waveforms plus built-in digital Multimeter display and analog bargraph

- Three models to choose from:
  - Model MS6060 — 60MHz bandwidth
  - Model MS6100 — 100MHz bandwidth
  - Model MS6200 — 200MHz bandwidth
- One-touch automatic setup optimizes the position, range, timebase, and triggering to assure a stable display of virtually any waveform
- 23 Automatic Measurements with easy-to-use pop-up menu with built-in multi-language system
- Waveform Math: Add, Subtract, Multiply, Divide and AVG
- Store and recall up to 1000 waveform screens and setups using the installed 2G microSD card
- Automatic cursor tracking measurements
- X/Y Mode
- Waveform Recorder to capture/replay input waveforms
- Pass-Fail function compares a stored waveform to an unknown input
- Built-in 6,000 count True RMS Multimeter with analog bargraph
- **Includes** two 1X/10X oscilloscope probes, test leads, 7.4V Li-Ion battery, universal AC charger, and carrying case

13X080



DISPLAYS:
A. Oscilloscope
B. Dual Channel
C. Multimeter
D. Pass/Fail Test
E. Reference
F. X/Y Format

SPECIFICATIONS			
Model	**MS6060**	**MS6100**	**MS6200**
Bandwidth	60MHz	100MHz	200MHz
Sample rate per channel	500MS/s	500MS/s	500MS/s
Risetime	5.8ns	3.5ns	1.8ns
Timebase Range	4ns/div to 40s/div	4ns/div to 40s/div	2ns/div to 40s/div

Ultrasonic Thickness Testers

TKG Series Ultrasonic Thickness Gauges

Ultrasonic technology allows for non-destructive thickness measurements for primarily steel structures. Compact, handheld, rugged construction is ideal for field use. Select models with digital thickness readout or live color waveform and data logging function.

- Wide measurement range: 5MHz probe: 0.040" to 20" of steel
- Sunlight readable dot-matrix display with backlight
- Multiple transducer options for high temperature and difficult to measure materials
- Fast minimum feature to capture minimum thicknesses
- On screen display of 8 languages
- Splash-proof (IP54), high impact, compact housing
- All models include 2oz bottle of couplant, 2 AA batteries, Transducer (5MHz, 0.375" diameter) with potted cable, and hard case. TKG150 and TKG250 also include protective holster, Echo to Echo, B-Scan, USB cable, and Extech XPorter software

Applications:

- Boiler Tubes
- Pressure Vessels
- Storage Tanks
- Ship Hulls
- Containers
- Home Oil Tanks
- Pipes
- Steam Lines
- Compressors
- Shafts
- Bridge Pins
- Bond Inspection

Model	TKG100	TKG150	TKG250

COMMON SPECIFICATIONS	
Thickness Range (in Steel)	5MHz probe: 0.040 to 20" (1.0 to 508mm)
Languages	English, French, Spanish, Italian, Czech, German, Portuguese, Slovak, Finnish, and Hungarian
Hold Mode	Holds display to retain last thickness reading with reverse video display
Freeze Mode	Freezes display (ideal for high temperature readings)
Fast Min/Max Mode	Displays min or max and actual thickness value at 20 measurements/sec
Units	Inches/Millimeters/Microseconds
Alarms	Min/Max depth, beeps and display flashes as well as keypad illumination; TKG150/TK250 also vibrate
Illuminating Keypad	F1 = Red, F2 = Yellow, F3 = Green for easy, go/no-go testing

Additional Functions	Model TKG100	Model TKG150	Model TKG250
Gain - Variable adjustment	—	Low, Standard, High	In 1dB steps from 20-90dB or Automatic Gain Control (ACG) for waveform
B-Scan - Displays a cross section of the test piece	—	Non-Encoded	Encoded or Non-Encoded - displays with optional encoder
Echo to Echo	—	Measure the metal thickness only (Paint & coatings do not affect base material thickness value)	
Differential Mode	—	Displays the difference from the actual thickness measurement and a user entered reference value	
Velocity Mode	—	Displays acoustic sound speed	
Data Logger	—	Records 100K readings in linear, 2D, 3D grid or boiler alphanumeric files, 20 character file name, export to excel via Extech XPorter interface program, also compatible with Ultrapipe. TKG250 also has file compare and grid review features.	
Range	—	—	Adjustment of manual range control or auto zoom tracking to center echoes independent of selected range
Rectification Modes	—	—	RF, Half Wave Positive, Half Wave Negative and Full Wave Rectification
Live Waveform (A-Scan)	—	—	Full adjustments for gain in 1dB step or AGC, main bang blank, blank after first received echo, range including zoom auto tracking to center echoes independent of material and rectification
Battery Life	Up to 50 hrs (20hrs w/backlighting)	Up to 50 hrs (20hrs w/backlighting)	8 to 14hrs (depends on operating conditions)

BEARINGS

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Specialized and conveyor belt fabrication, vulcanization, lacing, slitting, cleating and perforation.

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Hydraulic/pneumatic system design, assembly, power units and rebuild services.

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Coupled hose assemblies, hydrostatic pressure testing, external crimping, internal expansion and hose end power banding.

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